## TST-602-WALL

## 5.7" Wall Mount Wireless Touch Screen

- > Advanced wireless touch screen controller
- > Compact, lightweight contoured design
- > 5.7" LED Edgelit color LCD display
- > Capacitive touch screen technology
- > Smart Graphics™ support[11]
- > Voice recognition capability [1,2]
- > High-performance H.264 streaming video [3]
- > Rava® SIP intercom and phone technology [3]
- > Customizable audio feedback
- > Web browsing [1,2]
- > On-screen keyboard and mouse
- > Customizable screensaver
- > Built-in microphone and speakers
- > Illuminated buttons and engravable backlit text[3]
- > No-button front bezel option included
- > Dual-mode RF wireless performance Extended Range 2.4 GHz RF plus Wi-Fi<sup>® [8]</sup>
- Instant-Waking® behavior like an IR remote with all the benefits of 2-way RF!
- > Supports roaming for extended wireless coverage [7]
- > Includes wired Ethernet connectivity as an alternative to Wi-Fi<sup>[1]</sup>
- > Fast charging, long lasting Li-lon battery
- > Wall dock allows stationary use while charging [9]
- > Available in smooth black or white, or textured black finishes

The Crestron® TST-602-WALL Wall Mount Wireless Touch Screen delivers enhanced wireless control for the home, boardroom, or classroom in a stylish, ergonomic design. Its curved shape feels natural in the hands, with easy-access thumb-operable buttons placed to either side of a perfectly-sized color touch screen display. Dual-mode wireless performance with roaming capability assures dependable connectivity throughout the home or workplace. Wired Ethernet connectivity is also available via the included wall dock.

Featuring a high-contrast 5.7" capacitive touch screen with Smart Graphics™, the TST-602-WALL allows completely customizable control over audio, video, lighting, shades, climate, security, and other technologies. Scrolling menus of media titles and channel presets make it quick and easy to find and select any TV channel, video title, or music track. Optional tactile pushbuttons provide easy, immediate access to commonly used functions such as volume, mute, power, and on-screen menu navigation. Additional advanced features include the abilities to control any function using voice commands, view security cameras and other video sources, communicate using built-in intercom and phone capabilities, and browse the Internet.<sup>[1,2]</sup>

The TST-602-WALL is identical to the standard TST-602, except it includes a wall dock instead of the TST-602's standard table dock. The wall dock is designed for installation in a flat, vertical surface, providing



the convenience of a stationary wall mount touch screen while docked, with the ability to go mobile at the press of a button.

## **Smart Graphics™**

Crestron touch screens use Smart Graphics to deliver the ultimate user experience and the ultimate value by enabling the creation of dynamically rich user interfaces with incredible efficiency and unparalleled functionality. Using Smart Graphics, programmers can swiftly integrate fluid gesture-driven controls, animated feedback, rich metadata, embedded apps and widgets, and full-motion video for a deeply engaging and ultra-intuitive touch screen experience.

Crestron Smart Graphics offers these enhancements and more:

- Cool-looking graphical buttons, sliders, knobs, and gauges that are intuitive and fun to use
- Kinetic effects to enhance the feeling of realism, with lists and toolbars that scroll with momentum at the flick of a fingertip
- Drag-and-drop objects that snap into place, offering an easy way to switch sources
- Dashboard widgets to personalize the touch screen with clocks, weather, news, and other information [2]
- A power-saving screensaver, allowing display of time, temperature, and other text content at a reduced brightness level
- Customizable themes allowing a completely different look and feel for every user, event, or season
- Fully-developed SmartObjects<sup>™</sup> that enable sophisticated control over complex devices with minimal programming



## **Tactile Pushbuttons**

In addition to its touch screen display, the TST-602-WALL features illuminated tactile pushbuttons for quick access to volume adjustment, channel selection, and on-screen menu navigation functions. Eight additional pushbuttons, elegantly trimmed by illuminated button dividers, flank the edges of the touch screen to support additional programmable functions.

High-quality backlit laser-engraving lends a crisp, legible appearance to button text in both darkened and fully lit rooms. The pushbuttons come pre-engraved with labeling suited to a typical home theater or multimedia presentation application. If needed, customized engraving can be attained simply using Crestron Engraver software. A no-button front bezel is also included, which may be installed in place of the button bezel for a very clean appearance with no front panel pushbuttons.<sup>[3]</sup>

Two additional "trigger" style buttons are positioned on top of the TST-602-WALL for easy control of the display brightness, sleep mode, and other programmable functions.

## **Voice Recognition**

Some things are easier *said* than *done*, so why not just *say* what you want and let Crestron *do* it for you? With built-in voice recognition, the TST-602-WALL provides the ability to use spoken commands to control virtually anything. Voice recognition can be used to quickly turn devices on or off, select and play a specific media title or playlist, change the channel, choose a lighting scene, lock the doors, arm the security system, or enter a password. Simply press the Voice Recognition button on the touch screen and say a command and Crestron does the rest.<sup>[1,2]</sup>

## Streaming Video

High-performance streaming video capability makes it possible to view security cameras and other video sources right on the touch screen. Native support for H.264 and MJPEG formats allows the TST-602-WALL to display live streaming video from an IP camera, a streaming server (Crestron CEN-NVS200 or similar<sup>[4]</sup>), or a DigitalMedia<sup>™</sup> switcher.<sup>[1]</sup>

## Rava® SIP Intercom

Rava SIP Intercom Technology enables hands-free VoIP communication with other Rava-enabled touch screens and door stations, supporting 2-way intercom, video intercom<sup>[5]</sup>, and paging. VoIP phone capability is also possible through integration with an SIP-compatible IP phone system or SIP server, allowing hands-free telephone functionality complete with speed-dialing, caller ID, custom ringers, and other enhancements. Built-in echo cancellation affords full-duplex performance for clear, seamless voice communication using the TST-602-WALL's integrated microphone and speakers.<sup>[1]</sup>

## **Web Browsing**

Its built-in Web browser allows the TST-602-WALL to be used to access the Internet, providing a useful utility for viewing online media guides and quickly checking on social media sites, auctions, stocks, sports, and other online information.<sup>[1,2]</sup>

## **On-Screen Keyboard & Mouse**

On-screen multi-language keyboard and mouse capabilities provide for entry of passwords, URLs, and text search items, and enable the touch screen to be used as a wireless mouse touchpad to control a computer running TouchPoint® Virtual Mouse & Keyboard Software (VMK-WIN).

## **Audio Feedback**

Customized audio files can be loaded on the TST-602-WALL to add another dimension to the touch screen graphics using personalized sounds, button feedback, and voice prompts.

#### **Dual-Mode Wireless**

To deliver the ultimate in wireless touch screen performance and functionality, the TST-602-WALL employs a combination of Crestron Extended Range 2.4 GHz RF (ER) and Wi-Fi® wireless technologies.

- Extended Range RF (Required) Primary functionality is supported via Crestron ER wireless communications, providing seamless control with true feedback using the TST-602-WALL's tactile buttons and basic touch screen objects. Crestron ER wireless communication is enabled via the CEN-ERFGW-POE Extended Range RF Wireless Gateway<sup>[4]</sup>, affording ultra-dependable wireless performance up to 200 feet (60 m) indoors<sup>[6]</sup>. Roaming is supported between up to eight ER gateways for extended coverage.
- Wi-Fi (Optional) While the TST-602-WALL can be operated using only ER wireless, advanced wireless capabilities such as streaming video, intercom, voice recognition, Web browsing, and dynamic graphics can only be supported using both ER and Wi-Fi together (dual-mode). Crestron enhanced Wi-Fi wireless performance achieves a remarkable 50 feet (15 m) omnidirectional coverage indoors<sup>[6]</sup>. For Wi-Fi networks with multiple access points, the TST-602-WALL supports the ability to hand off communication from one access point to another if the active connection is lost.<sup>[7]</sup> The choice of 802.11 b, g, and n protocols affords reliable, high-speed wireless performance in virtually any RF environment. For optimal Wi-Fi performance, Crestron offers the CEN-WAP-1500 High Power Dual-Band Wireless Access Point.

IMPORTANT: EVERY INSTALLATION OF THE TST-602-WALL REQUIRES A CRESTRON ER WIRELESS GATEWAY TO ENABLE ESSENTIAL WIRELESS CAPABILITY. THE TST-602-WALL WILL NOT WORK WITH WI-FI (OR WIRED ETHERNET) ALONE.[8]

#### Instant-Waking®

To ensure the most transparent user experience possible, the TST-602-WALL has been engineered to wake instantly at the press of a button or touch of the touch screen. Button presses are sent immediately, just like an IR remote but with none of IR's limitations. So spontaneous actions like muting the audio, pausing the video, or changing the channel can be executed on-the-fly with just a single button press.

#### **Extended Battery Life**

Intelligent power management and robust Lithium Ion battery technology afford up to 3.5 hours of continuous operation and several days of typical use between charges.



## **Wall Dock Charger**

The TST-602-WALL includes a stylish wall dock for charging its internal battery. While docked, the touch screen remains fully operational, allowing use as a stationary wall mounted touch screen. The wall dock can also provide a wired Ethernet connection for the touch screen in the absence of Wi-Fi. When placed into the wall dock, the touch screen becomes partially recessed, providing a refined in-wall appearance while inhibiting unauthorized removal. By pressing a button or entering a passcode on the touch screen, the mechanism gently extends the touch screen outward. allowing it to be released for wireless use.

The wall dock is designed for flush-mount installation in a flat, vertical wall structure. A variety of mounting accessories is offered for both pre- and post-construction applications. Power can be supplied to the wall dock using 24VDC power from a Cresnet® network or dedicated Cresnet power supply.[9,10]

## **SPECIFICATIONS**

Note: See also TST-600-DSW for additional specifications.

## Touch Screen Display

Display Type: TFT Active matrix color LCD

Size: 5.7 inch (145 mm) diagonal

Aspect Ratio: 4:3 VGA Resolution: 640 x 480 pixels Brightness: 350 nits (cd/m²)

Contrast: 800:1

Color Depth: 18-bit, 262k colors Illumination: Edgelit LED

Viewing Angle: ±80° horizontal, ±70° vertical

Touch Screen: Projected Capacitive

## Buttons, Switches, & Indicators

Sleep: (1) Top-mounted pushbutton (left); programmable, normally initiates "Sleep" mode when docked, turns power on/off when undocked; also resets the unit if held for 5 seconds

Brightness: (1) Top-mounted pushbutton (right); programmable, normally sets display brightness level

Hard Keys: (8) Optional pushbuttons, programmable, engravable backlit text[2]

**Up/Down:** (2) Optional backlit translucent "up" and "down" pushbuttons, programmable, engravable backlit text on bezel[3]

Navigation Pad: (5) Optional backlit translucent pushbuttons for 4-way directional navigation and "select", programmable

Battery Switch: (1) Rear panel recessed slide switch, shuts off battery for long-term storage

Battery LED: (1) Green LED, indicates battery condition and charging status when docked

## Memory

LPDDR2 RAM: 1 GB

Flash: 4 GB

Maximum Project Size: 512 MB

## **Graphics Engine**

Supports Smart Graphics<sup>™</sup> [11], multi-language Web browser<sup>[1,2]</sup>, multi-language on-screen keyboard, screensaver

### Languages

Smart Graphics: Arabic, Chinese (Simplified), Chinese (Traditional), Czech, Danish, Dutch, English (UK), English (US), Finnish, French, German. Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Portuguese (Brazilian), Romanian, Russian, Slovak, Spanish, Swedish, Thai

On-Screen Keyboard: Arabic, Chinese (Simplified), Croatian, Czech, Danish, Dutch, English (UK), English (US), Finnish, French (Canada), French (Switzerland), German, Hebrew, Hungarian, Italian, Japanese, Norwegian Bokmal, Polish, Portuguese, Russian, Serbian, Spanish, Swedish, Turkish Voice Recognition: Afrikaans (South Africa); Chinese, Mandarin (China, Simplified): Chinese, Mandarin (Hong Kong, Simplified): Chinese, Mandarin (Taiwan, Traditional); Chinese, Yue (Hong Kong, Traditional); Czech (Czech Republic); Dutch (Netherlands); English (Australia); English (Canada); English (Generic); English (India); English (New Zealand); English (South Africa); English (UK); English (US); French (France); German (Germany); isiZulu (South Africa); Italian (Italy); Japanese (Japan); Korean (South Korea); Polish (Poland); Portuguese (Brazil); Russian (Russia); Spanish (Spain); Turkish (Turkey)

Web Browser: Arabic, Bulgarian, Catalan, Chinese, Croatian, Czech, Danish, Dutch, English, Filipino, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian Bokmal, Pashto, Persian, Polish, Portuguese, Romanian, Romansh, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish, Ukrainian, Vietnamese

## Wireless Communication (Primary) -Extended Range RF [8]

RF Transceiver: 2-way RF, 2.4 GHz ISM Channels 11-26 (2400 to 2483.5 MHz), IEEE 802.15.4 compliant

Transmitting Power: 75 mW (Ch.11), 100 mW (Ch.12-23), 15 mW (Ch.24), 3.5 mW (Ch.25), 1 mW (Ch.26) @ High Setting; 1 mW (Ch.11-25), 0.5 mW (Ch.26) @ Low Setting

Range (typical): 100 to 200 feet (30 to 60 m) maximum indoor, 1000 feet (300 m) outdoor, subject to site-specific conditions

Gateway: Requires a CEN-ERFGW-POE Extended Range RF Gateway<sup>[4]</sup> Roaming: Supports roaming between a maximum of eight gateways

## Wireless Communication (Secondary) - Wi-Fi® [8]

Transceiver: IEEE 802.11b/g/n Wi-Fi (2.4 GHz 2-way RF), static IP or dynamic IP via DHCP

Security: 64 & 128-bit WEP, WPA™ & WPA2™-PSK with TKIP & AES Range: Up to 50 feet (15 m), subject to site-specific conditions Gateway: Requires a CEN-WAP-1500 or similar 802.11b/g/n wireless access point and Ethernet-enabled Crestron control system Handoff: Supports handoff between a maximum of four Wi-Fi wireless

access points[7]

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### Wired Communication

Ethernet[1]: (Via wall or table dock) 10/100 Mbps, auto-switching, auto-

 $negotiating, \, auto\text{-}discovery, \, full/half \, \, duplex, \, DHCP$ 

USB: USB client for console only

### Video

Streaming Formats: H.264 (MPEG-4 part 10 AVC) or MJPEG, up to  $1024x720 @ 30 \text{ fps}^{[1]}$ 

#### **Audio**

Features: Built-in microphone and speakers, Rava® SIP Intercom[1],

multi-language voice recognition<sup>[1,2]</sup>
Audio Feedback Formats: MP3

#### Connectors

**Docking Connector:** (1) multi-pin connector;

Mates with the docking port on the wall or table dock[9]

**USB:** (1) Mini-B USB console port, for installer use only;

Mini-B to A USB cable included

Note: See TST-600-DSW wall dock specification for additional connectors [9]

#### **Battery**

Rechargeable Battery: Li-ion, 3.7 Volt, 3600 mAh, model TST-600-BTP<sup>[12]</sup> Usage per Charge: 3.5 hours continuous, 100 hours under normal use (10% active duty cycle with standby/power down enabled)

Charging Time: 2.5 hours with touch screen in standby, 3.5 to 5 hours

during use

## **Power Requirements**

Cresnet® Power Usage: 43 Watts (1.8 Amps @ 24 Volts DC)[10]

Note: May be powered by Cresnet network power or a dedicated Cresnet power supply. [9,10]

## Environmental

Temperature: 32° to 112°F (0° to 45°C);

50° to 104°F (10° to 40°C) while charging

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 147 BTU/hour (includes TST-600-DSW wall dock[8])

## Construction

Enclosure: Plastic, non-slip grips/feet, integral docking port
Front Bezels: Plastic, button and no-button bezels included, button
bezel includes white translucent illuminated Up/Down and Navigation Pad
buttons and 8 hardkey buttons with illuminated dividers and default backlit
text engraving, optional custom backlit text engraving sold separately<sup>[3]</sup>

#### **Dimensions**

Height: 5.10 in (130 mm) Width: 8.08 in (206 mm) Depth: 1.59 in (41 mm)

Note: Dimensions do not include the wall dock.[9]

### Weight

22.5 oz (636 g) without wall dock

## **MODELS & ACCESSORIES**

#### **Available Models**

TST-602-WALL-B-S: 5.7" Wall Mount Wireless Touch Screen, Black Smooth

TST-602-WALL-B-T: 5.7" Wall Mount Wireless Touch Screen, Black Textured

TST-602-WALL-W-S: 5.7" Wall Mount Wireless Touch Screen, White Smooth

#### **Included Accessories**

TST-600-BTP: Battery Pack (Qty. 1 included)

TST-600-DSW-B-S: Wall Dock, Black Smooth (Qty. 1 included with

TST-602-WALL-B-S)

TST-600-DSW-B-T: Wall Dock, Black Textured (Qty. 1 include with

TST-602-WALL-B-T)

TST-600-DSW-W-S: Wall Dock, White Smooth (Qty. 1 included with

TST-602-WALL-W-S)

TST-602-FPB-S-NB\_FRONT\_BEZEL: No-Button Bezel Kit, Black Smooth

(Qty. 1 include with TST-602-WALL-B-S)

TST-602-FPB-T-NB\_FRONT\_BEZEL: No-Button Bezel Kit, Black Textured (Qty. 1 include with TST-602-WALL-B-T)

TST-602-FPW-S-NB\_FRONT\_BEZEL: No-Button Bezel Kit, White Smooth

(Qty. 1 include with TST-602-WALL-W-S)

#### **Available Accessories**

TST-602-FP-BKLT-B-S\_FRONT\_BEZEL\_BLANK: Button Bezel Kit, No Engraving, Black Smooth

TST-602-FP-BKLT-B-S\_FRONT\_BEZEL\_ENGRAVED: Button Bezel Kit w/Custom Backlit Engraving, Black Smooth

TST-602-FP-BKLT-B-T\_FRONT\_BEZEL\_BLANK: Button Bezel Kit, No Engraving, Black Textured

TST-602-FP-BKLT-B-T\_FRONT\_BEZEL\_ENGRAVED: Button Bezel Kit w/Custom Backlit Engraving, Black Textured

TST-602-FPW-S\_FRONT\_BEZEL\_ BLANK: Button Bezel Kit, No Engraving, White Smooth

TST-602-FPW-S\_FRONT\_BEZEL\_ENGRAVED: Button Bezel Kit w/Custom Engraving, White Smooth

TST-600-DSW-BB: Wall Mount Back Box for TST-600-DSW

**TST-600-DSW-BBI:** Wall Mount Back Box for TST-600-DSW - International Version

TST-600-DSW-PMK: Pre-Construction Wall Mount Kit for TST-600-DSW

TST-600-DSW-MMK: Mud Ring for TST-600-DSW-BB & TST-600-DSW-PMK TST-600-DSW-TMK: Trim Ring for TST-600-DSW-BB & TST-600-DSW-PMK TST-600-DSW-WMKM: Post-Construction Wall Mount Kit w/Mud Ring for TST-600-DSW

TST-600-DSW-WMKT: Post-Construction Wall Mount Kit w/Trim Ring for

TST-600-DSW

CEN-ERFGW-POE: Extended Range RF Wireless Gateway CEN-WAP-1500: High Power Dual-Band Wireless Access Point

CNPWS-75: Cresnet Power Supply, 75 Watts

CNPWSI-75: Cresnet Power Supply, 75 Watts - International Version, 230V

**DIN-PWS50:** DIN Rail 50 Watt Cresnet Power Supply **GLA-PWS50:** Wall Mount 50 Watt Cresnet Power Supply

GLA-PWSI50: Wall Mount 50 Watt Cresnet Power Supply - International

Version

TST-600-DS: Table Dock

CBL-CAT5E-P-50: Ethernet LAN Cable, Plenum, 50 ft

CEN-NVS200: Network Video Streamer

SW-VMK-WIN: TouchPoint® Virtual Mouse & Keyboard Software for

Windows®

#### Notes:

- 1. The TST-602-WALL requires a LAN connection via either Wi-Fi wireless or wired Ethernet to enable advanced functionality including voice recognition, streaming video, intercom, Web browsing, and dynamic graphics. In addition to Wi-Fi or Ethernet, the TST-602-WALL requires ER (Extended Range) wireless communications for all applications to enable basic functionality. The TST-602-WALL will not work with Wi-Fi or Ethernet alone. The wired Ethernet connection is only available when docked.
- 2. Voice recognition, Web browsing, weather information, and certain other functions require an Internet connection via Wi-Fi or Ethernet.
- Text engraving is not backlit on the white model. All models include a button bezel with default engraving. Custom engraving is sold separately. All buttons may be removed using the TST-602-FP-NB No-Button Bezel (included).
- 4. Item(s) sold separately.
- 5. H.264 compatible IP camera required.
- 6. Wireless range subject to site-specific conditions.
- 7. True roaming is supported for ER wireless communication only, affording uninterrupted wireless performance for primary touch screen functions. Wi-Fi "handoff" capability enables automatic handoff amongst up to four pre-designated Wi-Fi wireless access points, wherein the last successful Wi-Fi connection is maintained indefinitely until that connection is lost, at which point communication is handed off to the next nearest access point. A very brief interruption to wireless Ethernet communication may occur during the handoff. Primary ER wireless communication is unaffected by the Wi-Fi handoff process.
- 8. ER (Extended Range) RF wireless communication supports basic wireless touch screen functionality, and is required for all applications. For advanced functionality including streaming video, intercom, voice recognition, Web browsing, and dynamic graphics, Wi-Fi wireless communication is also required (dual-mode). The TST-602-WALL will not work with Wi-Fi alone. Advanced functionality can also be enabled while docked through a wired Ethernet LAN connection (in combination with ER wireless).
- The TST-602-WALL ships with (1) TST-600-DSW Wall Dock included. Additional docking options are available separately.
- Connection to a Cresnet power supply or network is for power only. Cresnet communication is not supported.
- 11. Supports Smart Graphics only. Not compatible with "traditional" UI projects.
- Internal battery pack included. Battery pack replacement must be performed by a Crestron qualified technician.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at <a href="https://www.crestron.com/salesreps">www.crestron.com/salesreps</a> or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

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